

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-4. (Cancelled).

Claim 5. (Currently Amended) A transmission apparatus comprising:

spreading means for spreading each of an inphase component and a quadrature component of a signal to be transmitted by using a short code and a long code, the inphase component and the quadrature component having been separated from each other before the spreading; and

transmission means for transmitting the signal whose inphase component and quadrature component have been spread,

wherein the ~~spreading means spreads the inphase component and the quadrature component of the signal to be transmitted by using a~~ long code for spreading the [[whose]] inphase component and the long code for spreading the quadrature component are different from each other.

Claim 6. (Currently Amended) The transmission apparatus as claimed in claim 5 ~~[[1]]~~, wherein the ~~quadrature component of the long code for the quadrature component~~ is one obtained by shifting a phase of the ~~inphase component of the long code for the inphase component~~.

Claim 7. (Currently Amended) The transmission apparatus as claimed in claim 5 ~~[[1]]~~, wherein the spreading means carries out a complex operation between the inphase component and the quadrature component of the signal, and the long code for the inphase component and the long code for the quadrature component of the long code.

Claim 8. (Currently Amended) The transmission apparatus as claimed in claim 5 ~~[[1]]~~, wherein the spreading means spreads the inphase component and the quadrature component of the signal by using a same short code for the inphase component and the quadrature component of the signal.

Claim 9. (Currently Amended) A reception apparatus comprising:
reception means for receiving a spread signal; and
despreading means for despreading each of an inphase component and a quadrature component of the received signal by using a short code and a long code, the inphase component and the quadrature component having been separated from each other after the despreading.
~~wherein the despreading means despreads the inphase component and the quadrature component of the received signal by using a long code for despreading the~~ ~~[[whose]]~~ inphase component and the long code for despreading the quadrature component are different from each other.

Claim 10. (Currently Amended) The reception apparatus as claimed in claim 9 ~~[[5]]~~, wherein the ~~quadrature component of the long code~~ for the quadrature component is one

obtained by shifting a phase of the ~~inphase component of the~~ long code for the inphase component.

Claim 11. (Currently Amended) The reception apparatus as claimed in claim 9 [[5]], wherein the despreading means carries out a complex operation between the inphase component and the quadrature component of the received signal, and the long code for the inphase component and the long code for the quadrature component ~~of the long code~~.

Claim 12. (Currently Amended) The reception apparatus as claimed in claim 9 [[5]], wherein the despreading means despreads the inphase component and the quadrature component of the received signal by using a same short code for the inphase component and the quadrature component of the received signal.

Claim 13. (Currently Amended) A transmission method comprising:
a spreading step of spreading each of an inphase component and a quadrature component of a signal to be transmitted by using a short code and a long code, the inphase component and the quadrature component having been separated from each other before the spreading; and

a transmission step of transmitting the signal whose inphase component and quadrature component have been spread,

wherein the spreading step ~~spreads the inphase component and the quadrature component of the signal to be transmitted by using a~~ long code for spreading the [[whose]] inphase component and the long code for spreading the quadrature component are different from each other.

Claim 14. (Currently Amended) A reception method comprising:

a reception step of receiving a spread signal; and

a despreading step of despreading each of an inphase component and a quadrature component of the received signal by using a short code and a long code, the inphase component and the quadrature component having been separated from each other after the despreading,

~~wherein the despreading step despreads the inphase component and the quadrature component of the received signal by using a long code for despreading the~~ [[whose]] inphase component and the long code for despreading the quadrature component are different from each other.

Claim 15. (Currently Amended) A communication system comprising a transmission apparatus and a reception apparatus, wherein

the transmission apparatus comprises:

spreading means for spreading each of an inphase component and a quadrature component of a signal to be transmitted by using a short code and a long code, the inphase component and the quadrature component having been separated from each other before the spreading; and

transmission means for transmitting the signal whose inphase component and quadrature component have been spread, and

~~the spreading means spreads the inphase component and the quadrature component of the signal to be transmitted by using a long code for spreading the~~

[[whose]] inphase component and the long code for spreading the quadrature component are different from each other, and the reception apparatus comprises:

reception means for receiving the spread signal; and

despreading means for despreading each of an inphase component and a quadrature component of the received signal by using a short code and a long code, the inphase component and the quadrature component having been separated from each other after the despreading, and

~~the despreading means despreads the inphase component and the quadrature component of the received signal by using a long code for despreading the~~ [[whose]] inphase component and the long code for despreading the quadrature component are different from each other.